

Q1: Which of the following is not a benefit of using Swing GUI components?

- a. **Most Swing components are heavyweight.**
- b. Most Swing components are written completely in Java
- c. Swing components allow the user to specify a uniform look and feel across all platforms.
- d. Swing components allow the user to change the look and feel while the program is running.

Q 2: What is leJOS?

a: a graphical front end for LEGO MINDSTORMS™

b: an operating system and Java-based language for the RCX

c: an IDE for the LEGO MINDSTORMS™ programming language

d: a toolkit for building LEGO MINDSTORMS™ robots

Q3: A well-designed group of constructors:

- a. Guarantee the object is created in a consistent state.
- b. May call common methods.
- c. Allows the class's user flexibility in specifying some or all of the initial instance variable values.
- d. All of the above.

ANS d. All of the above.

Q4. InputStream and OutputStream are _____.

A. The top-level abstract classes defined in the java.io package, from which all other stream classes inherit.

B. The top-level abstract classes defined in the java.io package, from which all other byte stream classes inherit.

C. Classes that you can instantiate to read and write bytes.

D. Interfaces that define methods that can be used to read and write bytes.

Answer: B

Q5. You are writing a class Employee as a subclass of Person, ie: public class Employee extends Person You want to call the default constructor of the Person class. Which statement should you use?

- A) **super();** B) Person();
- C) this(); D) you can not call it.

Q6: To catch an exception, code must be enclosed in a

- a. throws block.
- b. catch block.
- c. try block.
- d. finally block.

ANS: c. try block.

Q7: **StringBuffer** objects can be used in place of **String** objects if:

- a. The string data is not constant.

Q8: The term encapsulation refers to:

- a. **public** methods.
- b. Hiding implementation details from clients of a class.
- c. Accessing static class members.
- d. The process of releasing an object for garbage collection.

ANS: b. Hiding implementation details from clients of a class.

Q 9. Given a Graphics object g, to draw an outline of a rectangle of width 20 and height 50 with the upper-left corner at (20, 20), you use _____.

A. g.drawRect(20, 50, 20, 20)

B. g.drawRectFill(20, 20, 20, 50)

C. g.drawRect(20, 20, 20, 50)

D. g.drawRectFill(20, 50, 20, 20)

Answer: C

Q10: Which of the following refers to a "has a" relationship instead of an "is a" relationship?

- a. A student to person.
- b. A university to an establishment.
- c. A university to a student. Ans:c
- d. A professor to a faculty member.

Q11: For which of the following would polymorphism not provide a clean solution?

- a. A billing program where there is a variety of clients who are billed with different fee structures.
- b. A maintenance log program where a variety of machine data is collected and maintenance schedules are produced for each machine based on the data collected.
- c. A program to compute savings account interest.
- d. An IRS program that maintains information on a variety of taxpayers and determines who to audit based on criteria for classes of taxpayers

Ans: c

Q 12: Consider the Java segment:

```
String line1 = new String( "c = 1 + 2 + 3" );  
StringTokenizer tok = new StringTokenizer( line1 );  
int count = tok.countTokens();
```

The value of count is:

- a. 8.
- b. 7.
- c. 13.
- d. 4.

ANS: b. 7.

Q 13. The _____ method is executed when the page becomes inactive.

- A. init()
- B. start()
- C. stop()**
- D. destroy()

Q 14. Java applications and applets both _____.

- A. have a main() method
- B. are executed using the java command
- C. are compiled using the javac command**
- D. are executed from the HTML file

Q 20: To draw on an applet, the programmer must access the

- b. The string data size may grow.
- c. Performance is not critical.
- d. All of the above.

ANS: d. All of the above.

Q15: How many **String** objects are instantiated by the following code segment (not including the literals)?

```
String s1, output;
s1 = "hello";

output += "\nThe string
reversed is: " ;

for ( int i = s1.length() -
1; i >= 0; i-- )
    output += s1.charAt( i ) +
" " ;
```

- a. 2.
- b. 1.
- c. 4.
- d. 5.

ANS: a. 2.

Q16: For a method to be invoked polymorphically, the subclass:

- a. Must implement the method with the same signature as the superclass.
- b. Must inherit the method from the superclass.
- c. Can implement the method with any signature.
- d. Can implement the method with the same signature or can inherit the method from the superclass.

ANS: d. Can implement the method with the same signature or can inherit the method from the superclass.

Q17: Which of the following is not a specific GUI component (control or widget)?

- a. **String.**
- b. Label.
- c. Menu.
- d. List.

Q 18: The layout manager that allows alignment to be controlled is:

- a. **FlowLayout.**
- b. **BorderLayout.**
- c. **GridLayout.**
- d. None of the above.

ANS: b. **FlowLayout.**

Q 19: **FlowLayout** is:

- a. An **abstract** class.
- b. A way of organizing components vertically.
- c. **The most basic layout manager.**

_____ object in the applet's **paint** method.

- a. **drawString**
- b. **drawLine**
- c. **Graphics**
- d. **Pixel**

ANS: c. **Graphics**

Q 21: What is the entry point for a leJOS program running on the RCX?

- a: public static void main(String[] args)
- b: public static void initRCXProgram()
- c: public static void mainRCX(RCXParams[] args)

Q 22: The code in a finally block:

- a. Is always executed if the corresponding try block is entered.
- b. Is executed only if an exception occurs.
- c. Is executed only if an exception does not occur.
- d. Is executed only if there are no catch blocks.

ANS: a. Is always executed if the corresponding try block is entered.

Q 23: Which of the following statements about try blocks is true?

- a. The try block must be followed by at least one catch block.
- b. The try block must be followed by a finally block.
- c. The try block should contain statements that may throw an exception.
- d. The try block should contain statements to process an exception.

ANS: c. The try block should contain statements that may throw an exception.

Q 24. Which of the following is not an advantage of Java exception handling?

A. Java separates exception handling from normal processing tasks.

B. Exception handling improves performance.

C. Exception handling makes it possible for the caller's caller to handle the exception.

D. Exception handling simplifies programming because the error-reporting and error-handling code can may be placed at the catch block.

Answer: B

Q 25 Which of the following statements is correct to create a BufferedWriter stream to write to a file named out.dat?

A. `BufferedWriter bw = new BufferedWriter(new File("out.dat"));`

B. `BufferedWriter bw = new BufferedWriter(new FileWriter("out.dat"));`

C. `BufferedWriter bw = new BufferedWriter("out.dat");`

D. `BufferedWriter bw = new BufferedWriter(new FileOutputStream("out.dat"));`

Answer: B

Left-aligned by default.